EPL
ENERGY PARTNERS, LTD.

EC 111 OCS-G-25944 # 2

Hercules 265

DRILLING PROGRAM SUMMARY

1) Mobilize Hercules 265 to location as per attached orientation diagram.
2) Use C&C Technologies to position rig on location. Run MesoTech Survey prior to lowering mat.
3) Well location Lambert Coordinates: Surface: X: 1,569,948.29' Y=178,903.42' Cib Carst Target: X=1,570,620.0 Y=178,910.0
   Position rig and record required information on IADC report. Jack up to 65' air gap.
4) Hold spud meeting and EPA compliance briefing with all personnel.
5) Drive 30"x1" wall to 401'RKB. Anticipate 235' of penetration.
6) RU 21-1/4"Diverter. PU 17-1/2" x 22" Sidewinder drilling assembly.
7) Drill 22" hole to 800' MD. Spot high vis pill on bottom. SLMOOH.
8) Run and cement 18-5/8" 87.5# X56 BTC as per recommendation.
9) Install 20-3/4" x 18-5/8 SOW Starting head. NU 21-1/4" Diverter with Adapter spool. PU 17-1/2" Pendulum drilling BHA. Test diverter & 18-5/8" conductor to 250psi on chart for 30 mins.
10) Drill 17-1/2" hole to 4500'. Take surveys every 1000'. SLMOOH.
11) Run & cement 13-3/8"68# J-55 BTC casing as per recommendation.
12) WOC 12hrs then ND diverter. Make rough cuts, then install 20-3/4"-3M x 13-5/8"-5M casinghead. Test. NU 13-5/8"-10M BOPs. Test to specs. Run Gyro survey while NU BOPS. Test 13-3/8" casing to 2500psi on chart for 30mins.
13) PU 12-1/4" drillout BHA. TIH and drillout floats plus 10' of new formation. Run LOT. Anticipate 14.3 EMW. Clean mud system. Displace mud system with OBM. POOH
14) PU rotary steerable BHA. TIH. Drill 12-1/4" hole to 10000'TVD / 10066'MD according to directional plan. Condition mud. POOH.
15) Run and cement 9-5/8" 53.50# HCQ-125 SLSF casing according to plan.

16) WOC 12hrs. PU BOPS. Install 9-5/8" slips. NU 13-5/8"-5M x 10M wellhead. Test to 4425psi. NU 13-5/8"-10 BOPS. Test to specs. Test 9-5/8" casing to 6600 psi. for 30 min. on chart.
17) PU 8-1/2"l drilling assembly w/ MWD /LWD and TIH. Drill floats +10' of new hole. Run LOT. Anticipate 17.5ppg EMW.
18) Drill 8-1/2" hole to 11800'TVD / 11866'MD. Take surveys every 100'. SLMOOH.
19) Run & Cement 7" 32# HC P110 STL liner with at least 200' of overlap according to ELH running procedure. Reverse out after setting liner top packer. POOH. Lay down excess 5" DP & BHA.
20) Install 5"x 3-1/2" variable bore rams in BOPS and test both sizes to specs.
21) PU 6" drilling BHA w/MWD/ LWD. TIH to liner top. Test liner top to 2200psi w/ 15.7ppg mud. Adjust test pressure according to mud weight.
22) Continue in hole and drill float equipment plus 10' of new hole. Run LOT. Expect 18.4EMW.
23) Drill 6" hole to 13700' TVD / 13766'MD. Circulate and condition hole to log. POOH and download LWD/ MWD.
24) RU open hole logging equipment and run required logs / Take cores. Be prepare to take pressure in Cib Carst sand.
25) If productive, run and cement 5" 18# G105 SLF production liner according to the liner running procedure. Reverse out excess cement. Test liner top to 1300 psi for 30 mins. Modify pressures according to mud weight in use.
26) Abandonment or completion program to be submitted after evaluation of logs.

EPL **East Cameron Block 111 Well # 2**

CALCULATION OF MAXIMUM ANTICIPATED SURFACE PRESSURE

MASP = Maximum Anticipated Surface Pressure (psi)
FG = Fracture Gradient at Casing Shoe (ppg)
TVD = True Vertical Depth of Casing Shoe (ft)

30 inch Structural Casing @ 401 ft

Will not be shut in.

18 5/8 inch Conductor Casing @ 800 ft

MASP = (FG x .052 - 0.115) x TVD)

TVD = 800 ft
FG = 12.0 ppg **MASP** = 410 psi

13 3/8 inch Surface Casing @ 4,500 ft

MASP = (FG x .052 - 0.115) x TVD)

TVD = 4,500 ft
FG = 14.3 ppg **MASP** = 2,830 psi

9 5/8 inch Intermediate Casing @ 10,066 ft

MASP = (FG @ deepest shoe *.052 * TVD of deepest shoe) - (Hydrostatic of 1/2 Mud Column & 1/2 Gas Column)

TVD = 11,800 ft
Gas Gr = 0.150 psi/ft
FG = 18.4 ppg **MASP** = 5,840 psi

7 inch Drilling Liner @ 11,866 ft

MASP = (FG @ deepest shoe *.052 * TVD of deepest shoe) - (Hydrostatic of 1/2 Mud Column & 1/2 Gas Column)

TVD = 11,800 ft
Gas Gr = 0.150 psi/ft
FG = 18.4 ppg **MASP** = 5,840 psi

5 inch Prod. Liner @ 13,766 ft

MASP = Pore Pressure at TD - Gas Gradient to Surface (Production Design)

TVD = 13,700 ft
Gas Gr = 0.150 psi/ft
PP = 16.8 ppg **MASP** = 9,910 psi

Depth of mud/gas interface for 1/2 evacuation: 6,850 ft
Depth of Deepest Drilling Shoe: 11,800 ft
FG @ Deepest Drilling Shoe: 18.4 ppg

EPL **East Cameron Block 111 Well # 2**

A. Conductor Casing 18 5/8 " , 87.50 #, X-56 , BTC @ 800 '

1. Collapse Design

Safety Factor = Casing Collapse Rating / (External Hydrostatic - Internal Gas Gradient)

S.F. = 630 psi /((9.2 * .052 - .115)* 800) = 2.17

2. Tension Design

Safety Factor = Lessor of pipe body or joint strength / (Air Weight * Buoyancy)

S.F. = 1,765,000 /(800 * 87.5 * .859) = 29.34

3. Burst Design

MASP = (FG x .052 - 0.115) x TVD) FG = 12.0 ppg
TVD = 800 ft

S.F. = Casing Burst Rating / MASP = 2,290 psi / 410 psi = 5.59

B. Surface Casing 13 3/8 " , 68.00 #, J-55 , BTC @ 4,500 '

1. Collapse Design

Safety Factor = Casing Collapse Rating / (External Hydrostatic - Internal Gas Gradient)

S.F. = 1,950 psi /((9.5 * .052 - .115)* 4,500) = 1.14

2. Tension Design

Safety Factor = Lessor of pipe body or joint strength / (Air Weight * Buoyancy)

S.F. = 1,069,000 /(4,500 * 68.00 * .855) = 4.09

3. Burst Design

MASP = (FG x .052 - 0.115) x TVD) FG = 14.3 ppg
TVD = 4,500 ft

S.F. = Casing Burst Rating / MASP = 3,450 psi / 2,830 psi = 1.22

EPL **East Cameron Block 111 Well # 2**

C. Intermediate - 9 5/8 " , 53.50 # , HCQ-125 , SLX @ 10,066 '

1. Collapse Design

Safety Factor = Casing collapse rating / External mud hydrostatic - internal hydrostatic when mud level has fallen to a 9.0 ppg gradient at the deepest casing shoe, or has fallen below this casing shoe.

Drilling S.F. = 8,850 psi /((13.0 " 0.052 - .150) " 7885) = 2.13

Deepest Mud Level for this shoe : 7,885 ft

2. Tension Design

Safety Factor = Lessor of pipe body yield or joint strength / (Air weight " Buoyancy)

S.F. = 1,508,000 /(10,066 " 53.5 " 0.801) = 3.49

3. Burst Design

Safety Factor = Casing Burst Rating / MASP

MASP = (FG @ deepest shoe ".052 " TVD of deepest shoe) - (Hydrostatic of 1/2 Mud Column & 1/2 Gas Column)
MASP = 5,840 psi

Drilling SF = 12,390 psi / 5,840 psi = 2.12

D. Drilling Liner - 7 " , 32.00 # , HCP-110 , SLX @ 11,866 '

1. Collapse Design

Safety Factor = Casing collapse rating / External mud hydrostatic - internal hydrostatic when mud level has fallen to a 9.0 ppg gradient at the deepest casing shoe, or has fallen below this casing shoe.

Drilling S.F. = 13,510 /((15.7 " .052 - .150) " 7885) = 2.57

Deepest Mud Level for this shoe : 7,885 ft

2. Tension Design

Safety Factor = Lessor of pipe body yield or joint strength / (Air weight " Buoyancy)

S.F. = 815,000 /(2,100 " 32.00 " 0.760) = 15.96

3. Burst Design

MASP = (FG @ deepest shoe ".052 " TVD of deepest shoe) - (Hydrostatic of 1/2 Mud Column & 1/2 Gas Column)
MASP = 5,840 psi

Length of 1/3 evacuation (TVD) : 4,567 ft max MWin : 17.2 ppg
Liner Top --> TD distance (TVD) : 4,000 ft MWout : 15.7 ppg
Liner Top depth (TVD) : 9,700 ft Pkr fluid : 11.6 ppg

Burst Load = MASP + max MWin " 0.052 " length Mud Column + Gas Gradient " length Gas Column to TOL - MWout " 0.052 " TOL depth
Burst Load = 6,175 psi

SF = 12,460 psi / 6,175 psi = 2.02

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East Cameron Block 111 Well # 2

E. Prod. Liner - 5 " , 18.00 # , G-105 SLF @ 13,766 '

1. Collapse Design

Safety Factor = Casing collapse rating / External mud hydrostatic - internal hydrostatic when mud level has fallen to a 9.0 ppg gradient at the deepest casing shoe, or has fallen below this casing shoe.

Production S.F. = 13,000 /((16.8 * .052 - .150) * 13700) = 1.31

2. Tension Design

Safety Factor = Lessor of pipe body yield or joint strength / (Air weight * Buoyancy)

S.F. = 362,700 /(2,200 * 18.00 * 0.737) = 12.42

3. Burst Design

MASP = Pore Pressure at TD - Gas Gradient to Surface (Production Design)

MASP = 9,910 psi

Length of 1/3 evacuation (TVD) : 4,567 ft
Liner Top --> TD distance (TVD) : 2,200 ft
Liner Top depth (TVD) : 11,500 ft

max MWin : 17.2 ppg
MWout : 17.2 ppg
Pkr fluid : 11.6 ppg

Burst Load = MASP + (Pkr Fluid - MWout) * 0.052 * TOL depth

Burst Load = 6,561 psi

SF = 13,300 psi / 6,561 psi = 2.03